AMENDMENTS TO THE DRAWINGS

Replacement formal drawings of Figures 17-19 are submitted concurrently herewith under a separate cover letter.

REMARKS

In view of the above amendments and the following remarks, reconsideration of the rejection and further examination are respectfully requested.

The specification and abstract have been reviewed and revised to improve their English grammar. The amendments to the specification and abstract have been incorporated into a substitute specification and abstract. Attached are two versions of the substitute specification, a marked-up version showing the revisions, as well as a clean version. No new matter has been added.

Drawing amendments are submitted herewith under a separate cover letter. Specifically, Figures 17, 18, and 19 have been amended to correct various typographical errors. These drawing amendments are editorial in nature and do not add new matter to the application.

In accordance with Examiner's request, the title of the invention has been amended. The invention is now titled "A ROUTING DEVICE FOR CONNECTING MULTIPLE PHSYICALLY DISCRETE NETWORKS INTO A SINGLE SYSTEM AND STARTUP METHOD THEREOF."

Original claims 1-24 have been cancelled without prejudice or disclaimer to the subject matter contained therein and replaced by new claims 25-42.

Claims 1-12 were rejected under 35 U.S.C. § 102(e) as being anticipated by Ando et al. (EP 1,039,725 A2). Further, dependent claims 13-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ando in view of Rangarajan et al. (U.S. 7,126,944). These rejections are believed clearly inapplicable to new claims 25-42 for the following reasons.

New independent claims 25 and 37 recite a method and a program causing a computer to execute a method, respectively. Further, the method of claims 25 and 37 includes starting a first routing device which connects a plurality of networks to which a plurality of second routing devices are connected, the method including, in part, storing master router data on each of the second routing devices. The master router data stored on each of the second routing devices indicates whether each respective second routing device is a master router located on a path to a parent router that assigns network identification data to identify the networks, or a slave router which is a router other than a

master router. In addition, the above-mentioned method also includes requesting, via the first routing device, the master router data from each of the second routing devices on each of the networks which the first routing device connects, acquiring, via the first routing device, the requested master router data, detecting a number of master routers on the networks which the first routing device connects according to the acquired master router data, and disabling a functionality of the first routing device when the number of detected master routers is 0 or 2 or more.

The Ando reference fails to disclose or suggest a method of starting a first routing device which includes requesting and acquiring, via the first routing device, the master router data from each of the second routing devices on each of the networks which the first routing device connects, detecting a number of master routers on the networks, which the first routing device connects, according to acquired master router data, and disabling a functionality of the first routing device when the number of detected master routers is 0 or 2 or more, as recited in independent claims 25 and 37.

Rather, Ando teaches a method of connecting a new router to a network, wherein the functionality of the new router is always enabled, by assigning a network identifier to the new router, getting routing information from the new router, and notifying other routers that the new router is connected (see column 3, line 49 through column 4, line 9). Specifically, Ando teaches method steps executed by new router A when new router A is newly connected to network A. These method steps include (1) determining an unused network identifier to be used by new router A based on routing information stored in router B, which is a router already connected to network A, (2) assigning the determined network identifier to which router A, (3) getting the routing information of new router A, and (4) notifying other routers that router A has been newly connected to the network (see column 3, line 55 through column 4, line 4). Further, Ando teaches that the routing information is used to determine which network(s) is/are notified in the notification step (see step 4 above, and column 4, lines 4-6). Thus, the following differences between the invention recited in independent claims 25 and 37 and the Ando reference become evident.

Ando's disclosure of starting up a router newly connected to a network by assigning a network identifier based on routing information stored in another router

connected to the network which the router is newly connected does not disclose or suggest that each existing router on the connected network stores master router data indicating whether the second routing device is a master router located on a path to a parent router that assigns network identification data or is a slave router which is a router other than master router, as recited in independent claims 25 and 37.

Further, in view of the above, it is clear that Ando's disclosure of determining an unused network identifier based on routing information stored in a router (i.e., router B) already connected to the network (i.e., network B), does not disclose or suggest requesting the master router data from each of the second routing devices on each of the networks which the first routing device connects and detecting the number of master routers on the networks which the first routing device connects according to the master router data acquired in response to the above-mentioned requesting.

Further, Ando's disclosure of assigning a network identifier to the network which the new router is connected, getting routing information, and notifying other routers that the new router has been connected does not disclose or suggest disabling a functionality of the first routing device when the number of detected master routers is 0 or 2 or more.

In other words, Ando's disclosure of connecting a router, assigning a network identifier, getting routing information, and notifying other routers that the new router has been connected is not the same as or even similar to storing the master router data, requesting the master router data, detecting the number of master routers according to acquired to master router data, and disabling a functionality of the first routing device when the number of detected master routers is 0 or 2 or more as recited in independent claims 25 and 37.

Please note that one of the benefits of the configuration recited in claims 25 and 37 is that it is possible to determine if the network becomes a loop since, if plural master routers are detected, it is determined that a loop occurs in the network, and the functionality of the first routing device is disabled. In view of the discussion above, Ando does not provide the above-mentioned benefits of the features recited by independent claims 25 and 37, since Ando does not teach that the functionality of the new router is disabled based on a number of detected master routers.

In view of the above, it is respectfully submitted that the Ando reference does not anticipate the reference as recited in new independent claims 25 and 37. Furthermore, Ando does not suggest the above-discussed limitations of independent claims 25 and 37. Therefore, it would not have been obvious to one of ordinary skill in the art to modify the Ando reference so as to obtain the invention of new independent claims 25 and 37. Accordingly, it is respectfully submitted that claims 25-35 and 37-42 are clearly allowable over Ando.

It is also noted that new independent claim 36 is an apparatus version of independent method claim 25, wherein a first routing device operates in a similar manner as that recited in the method of independent claim 25. Specifically, the first routing device of claim 36 includes a requesting section operable to request master router data from each of the second routing devices, a acquiring section operable to acquire the requested master router data, a detecting section operable to detect a number of master routers, and a disabling section operable to disable a functionality of the first routing device. Thus, for reasons similar to those discussed above, it is respectfully submitted that independent claim 36 is allowable over the Ando reference.

In addition, the Rangarajan reference was cited for teaching a computer program stored on a computer-readable medium causing a computer to execute a method in the 35 U.S.C. § 103(a) of original dependent claims 13-24. Although, as identified by the Examiner, Rangarajan teaches the use of a computer-readable recording medium, the Rangarajan reference does not disclose or suggest the above-discussed features of new independent claims 25, 36 and 37 which are lacking from the Ando reference. Therefore, the invention of claims 25-42 are not disclosed or suggested by any combination of the Ando and Rangarajan references. Accordingly, it is respectfully submitted that new claims 25-42 are clearly allowable over the Ando and Rangarajan references.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance and an early notification thereof is earnestly requested. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

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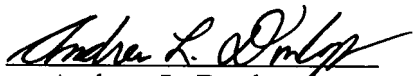
By: 
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